

C. Remarks

The claims are 1-12 and 21, with claim 1 being the sole independent claim. Claims 13-20 have been cancelled without prejudice or disclaimer. Claims 1, 7, 11 and 12 have been amended to clarify the invention. Specifically, claims 7 and 11 have been amended to correct typographical errors, and claims 1 and 12 have been amended to better define the invention. Support for the amendments and new claim can be found throughout the application as originally filed, e.g., at page 15, lines 8-18, at page 16, line 6, through page 18, line 24, and at Figure 5. Applicants submit that no new matter has been added. Reconsideration of the present claims is respectfully requested.

Claim 19 stands rejected under 35 U.S.C. §101. Applicants (without addressing the alleged merits of this rejection) have cancelled claim 19 in an effort to expedite prosecution of this case. Accordingly, the rejection of claim 19 under 35 U.S.C. §101 is moot and should be withdrawn.

Claims 1-20 (now claims 1-12 and 21) stand rejected under 35 U.S.C. §103(a) as being obvious over Kikuta (U.S. Patent No. 5,927,874) in view of Hori (U.S. Patent No. 5,816,714) and further in view of Oda (U.S. Patent No. 5,838,888). Applicants respectfully traverse this rejection.

One of the key features of the presently claimed invention is the data shifting means (or the data shifting step) which shifts data, from an area of the print buffer corresponding to the printing elements used in a given scan, in a direction in which the printing elements are arranged. In this way, even though the transport distance of the printing paper and/or the number of printing elements used in a given scan changes with each scan, the printing apparatus of the present invention is able to effect printing by

corresponding the printing data to the printing elements. Despite the changing transport distance and/or number of implicated printing elements, the printing apparatus of the present invention can shift process within a short time; this is accomplished by changing the location of the storage area in the register by the amount of width of each area, because the time required to store data in the register does not change regardless of storage location.

As noted by the Examiner, neither Kikuta nor Hori discloses or suggests any detail with regard to data shifting processing. The Examiner cites Oda on this point. However, Oda discloses data shifting processing at column 4, lines 46-62, and column 5, line 10-26. In Oda, though, data shifting processing is done in a direction of the printhead scanning to accelerate printing speed by dispersing data processing for the printhead. On the contrary, according to the present invention, data shifting processing is done in the direction in which the printing elements of the printhead are arranged. Thus, the data shifting directions of Oda and of the present invention are different from each other. Accordingly, a printing apparatus made using the teachings of Oda would not enjoy the benefits of the presently claimed data shifting means (or data shifting step).

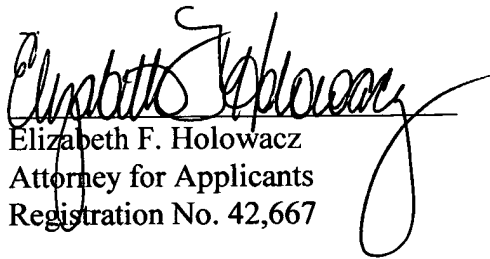
In sum, it is clear that the present invention is not rendered obvious by the cited references, whether considered alone or in combination. There is simply no disclosure of the claimed data shifting means (or data shifting step). Accordingly, Applicants respectfully request withdrawal of the §103 rejection.

In view of the foregoing amendments and remarks, favorable consideration and passage to issue of the present case is respectfully requested. If, upon consideration of this paper, the Examiner believes there are any outstanding issues, it is respectfully

requested that the Examiner contact the undersigned attorney in an effort to expeditiously resolve such issues.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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